

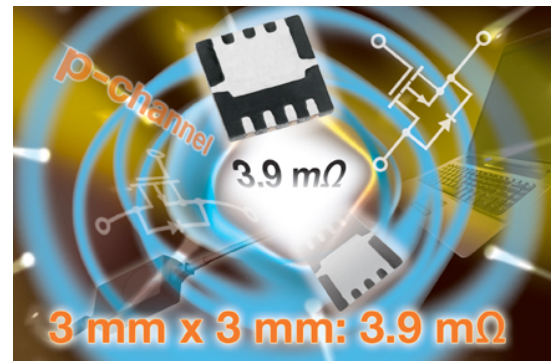


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New Si7615DN 20-V P-Channel TrenchFET® Gen III Power MOSFET

The Key Benefits:

- Provides industry's lowest on-resistance in a 3.3-mm by 3.3-mm footprint area
- On-resistance down to 3.9 mΩ helps reduce power consumption, saving power for greener solutions and prolonging battery charges for battery powered applications, such as in adaptor switches
- Compact PowerPAK® 1212-8 package is one third the footprint area of the PowerPAK® SO-8 or SO-8 type packages
- Halogen free in accordance with IEC 61249-2-21



The Key Applications:

- Adaptor switch and load switching applications in notebook computers and netbooks; 12-V and 5-V load switches and hot swapping in industrial/general systems

The News:

Vishay Siliconix Releases New 20-V P-Channel TrenchFET® Gen III Power MOSFET With Industry's Lowest On-Resistance for 3.3-mm by 3.3-mm Footprint Area

Vishay Intertechnology, Inc. (NYSE: VSH) announces a new 20-V p-channel TrenchFET® Gen III power MOSFET with the lowest on-resistance ever achieved in the PowerPAK® 1212-8 type package. With a compact 3.3-mm by 3.3-mm footprint, the device saves space by offering one third the footprint area of the PowerPAK® SO-8 or SO-8 type packages.

The Key Specifications:

- 20-V V_{DS}
- ± 12 -V V_{GS}
- PowerPAK® 1212-8 package with 3.3-mm by 3.3-mm footprint
- On-resistance:
 - 3.9 mΩ at 10 V
 - 5.5 mΩ at 4.5 V
 - 9.8 mΩ at 2.5 V



The Perspective:

Vishay's new Si7615DN 20-V p-channel TrenchFET® Gen III power MOSFET offers the lowest on-resistance ever achieved in the PowerPAK® 1212-8 type package: 3.9 mΩ at 10 V, 5.5 mΩ at 4.5 V, and 9.8 mΩ at 2.5 V. With a compact 3.3-mm by 3.3-mm footprint, the device saves space by offering one third the footprint area of the PowerPAK® SO-8 or SO-8 type packages.

The Si7615DN more than halves the on-resistance even considering the lowest 20-V and 30-V alternatives in the footprint area of the PowerPAK® 1212-8, which are over 10 mΩ.

For adaptor switches in notebook computers and netbooks, which are always on and drawing current, the lower on-resistance of the Si7615DN translates into lower power consumption, saving power and prolonging battery life between charges. Low on-resistance is needed for the hot swap application to minimize the impact on the MOSFET's V_{DS} voltage when maximum current is needed. Typically n-channel MOSFETs are used for the hot swap application, but with TrenchFET Gen III technology now p-channels can be considered.

The Si7615DN joins the TrenchFET® Gen III p-channel family along with Vishay's recently released Si7137DP 20-V p-channel in the PowerPAK® SO-8 package. To meet the needs of individual applications, it offer designers a choice between the maximum drain current and power dissipation of the PowerPAK® SO-8 (60 % and 75 % higher, respectively, than the SO-8) or the space savings provided by the PowerPAK® 1212-8.

Availability: Samples and production quantities of the new Si7615DN TrenchFET® power MOSFET are available now, with lead times of 10 to 12 weeks for larger orders.

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